Regulatory Requirements

. . .and Agreements

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Agreement in Principle

In June 1993, the Nevada Site Office and the State of Nevada negotiated the Agreement in Principle. This Agreement reflects the understanding and commitments between DOE and the State of Nevada regarding the DOE NSO provision of technical and financial support to the state for environmental, safety, and health oversight as well as associated monitoring activities for the NSO operations located in Nevada. The NSO also commits to assist in emergency management initiatives designed to further protect the health and safety of Nevada Test Site personnel as well as citizens throughout Nevada. Additionally, the NSO-State of Nevada Joint Low-Level Waste Oversight Agreement was incorporated as an appendix to the 1993 Agreement in Principle. This appendix is a cooperative oversight arrangement between the NSO and the State of Nevada which grants the State an increased role in monitoring the management of low-level wastes generated at the NTS as well as those generated by other DOE facilities and disposed at the NTS. By entering into the agreement, the NSO and the State agree to share information concerning waste types and quantities in addition to any general information that allows the State to conduct detailed oversight of waste disposal operations. As part of the agreement, the State can conduct prompt reviews of operating documents and site management procedures.

Summary

As the world's largest environmental cleanup effort, DOE's Environmental Management Program is an essential part of the agency's mission. The Nevada Site Office is committed to meeting this objective through the responsible characterization and safe remediation of inactive contaminated sites for which it is responsible. All activities are conducted in compliance with applicable federal, state, local, and tribal laws and regulations. This approach ensures that programmatic objectives are met with minimal impacts to the environment, workers, and surrounding communities.

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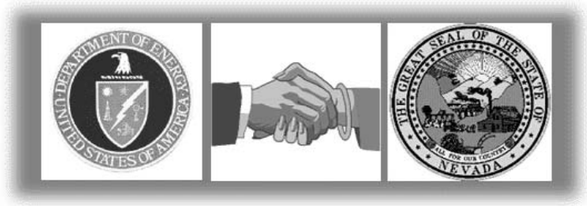
Overview

The U.S. Department of Energy's (DOE) Environmental Management Program was established in 1989 to address the environmental liabilities of fifty years of nuclear weapons production in the United States. As the world's largest environmental cleanup effort, this program is an essential part of the DOE mission. The DOE Environmental Management Program must characterize and safely remediate (clean up) inactive contaminated sites. In conducting this work, DOE must minimize, handle, treat, store, transport, and dispose of DOE wastes in a safe and environmentally responsible manner. DOE must also ensure that risks to human health and safety and the environment posed by DOE facilities are eliminated or reduced to publicly acceptable levels. All such activities are conducted in compliance with federal, state, local, and tribal environmental health and safety laws and regulations.



> There are many different types of waste for which Nevada Site Office is responsible, each of which is governed by specific regulations, agreements and consent orders depending, on part, on their content. ***Low-level radioactive waste***, for instance, contains a small amount of radioactivity but no hazardous chemical components. By contrast, ***hazardous waste*** is nonradioactive but contains toxic, corrosive, reactive, or ignitable substances. ***Transuranic waste*** contains man-made radioactive elements heavier than uranium; hence, the name "trans" or "beyond" uranium. Finally ***mixed waste***, whether mixed low-level waste or mixed transuranic waste, is considered separately from strictly radioactive or hazardous wastes because of the presence of both hazardous and radioactive components.

The DOE Nevada Site Office Environmental Management Program is responsible for environmental restoration and waste management activities at: the Nevada Test Site (NTS); facilities in North Las Vegas and on the Nellis Air Force Range; the Tonopah Test Range; and eight other locations in Nevada, Colorado, New Mexico, Alaska, and Mississippi. Current Nevada Site Office activities include: characterizing and cleaning up the NTS and associated off-site locations; adopting strategies to safely accept and dispose of low-level radioactive waste; removing legacy transuranic waste and mixed waste for disposition; and closing on-site disposal areas in compliance with regulatory requirements.

The Nevada Site Office environmental management process is monitored and managed in compliance with a wide variety of laws, regulations, agreements, and consent orders designed to ensure that appropriate oversight and involvement by regulatory agencies and the public are maintained. As this regulatory framework can be confusing and difficult to understand, the following is a brief summary of the more significant provisions and commitments contained within the principal regulations, agreements, and consent orders that shape and control the Nevada Site Office Environmental Management Program.

The dominant regulatory drivers for environmental restoration and waste management activities are the:

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- *Resource Conservation and Recovery Act (RCRA)*
- *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*
- *National Environmental Policy Act (NEPA)*

For DOE sites and facilities within the state of Nevada, detailed process-specific requirements are captured in the:

- *Federal Facility Agreement and Consent Order (FFACO)*
- *Federal Facility Compliance Act-Consent Order (FFCAct-CO)*

In addition, the storage and management requirements for certain mixtures of radioactive and hazardous waste are further defined through specific agreements between the Nevada Site Office and the State of Nevada, including the:

- *Mutual Consent Agreement, and the*
- *Settlement Agreement*

Finally, as part of an agreement to establish a program of independent monitoring and oversight of the Nevada Site Office operational activities, the Nevada Site Office and the State of Nevada entered into the Agreement in Principle.

Resource Conservation and Recovery Act (RCRA) of 1976, as Amended

Enacted in 1976 as an amendment to the Solid Waste Disposal Act of 1965, RCRA is the federal law that provides "cradle to grave" management of solid wastes in a manner that protects human health and the environment. It provides criteria for regulating and managing hazardous wastes, nonhazardous solid wastes, and underground storage tanks. RCRA promotes the use of recycled and recovered materials, environmentally sound disposal methods, and the reuse of recoverable resources. It also encourages waste reduction and fosters resource conservation.

In May 1995, in accordance with RCRA, the Nevada Division of Environmental Protection (NDEP) issued a RCRA Part B Permit to the Nevada Site Office to address the management of some of its hazardous waste materials. This permit authorizes DOE/NV to operate a nonradioactive Hazardous Waste Storage Unit and an Explosive Ordnance Disposal Unit at the NTS. The permit also requires the Nevada Site Office to take corrective actions to protect human health and the environment from all releases of hazardous waste or its RCRA-regulated constituents. In addition, the permit identified nine historical NTS sites for which the Nevada Site Office had to develop and specify corrective action requirements. These requirements are defined in, and governed by, the FFACO.

The Hazardous Waste Pad at the Nevada Test Site.

Federal Facility Agreement and Consent Order (FFACO)

The FFACO, which became effective in May 1996, applies only to Nevada Site Office facilities in Nevada. It outlines a process for identifying, prioritizing, investigating, and remediating sites contaminated by years of nuclear weapons production and testing. It also establishes a technical strategy for cleanup activities, maximizes the opportunity to complete multiple corrective actions, and provides a mechanism for public involvement. The FFACO applies to inactive contaminated sites and facilities at: the NTS; the Central Nevada Test Area; the Project Shoal Area; parts of the Tonopah Test Range; and parts of the Nellis Air Force Range. The Nevada Site Office, the State of Nevada, and the U.S. Department of Defense entered into this tri-party agreement to meet the following objectives:

- Identify sites with potential historical contamination and implement proposed corrective actions.
- Establish specific sampling and monitoring requirements.
- Ensure cooperation, coordination, and communication among the parties.
- Reduce substantially the costs of cleanup activities.
- Develop cost-effective approaches to site management.

Relationship Between NTS Agreements and Permits

Requirements found in RCRA, the Mutual Consent Agreement, the Settlement Agreement, the FFCAct-CO, and the FFACO often overlap, tying certain regulations, agreements and consent orders together. As some of these requirements work in conjunction with each other, compliance with one requirement may satisfy part of another.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980

The CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986, authorizes cleanup responses when there is a release or threat of a release of a hazardous substance into the environment. The CERCLA has three primary missions:

- Identify sites where releases of hazardous substances have occurred or might occur and pose a serious threat to human health, welfare, or the environment.
- Take appropriate action to remedy those releases.
- Ensure that responsible parties pay for the cleanup activities.

Although CERCLA was designed to impose cleanup and reporting requirements on the private sector, it also applies to DOE and its facilities. It is important to note that unlike other environmental laws, CERCLA is a response and reporting act as opposed to an extensive regulatory act such as RCRA, although they do overlap in some areas.

Under CERCLA, operators are responsible for reporting releases of hazardous substances into the environment. In addition, EPA has the authority to either clean up contaminated sites or mandate others to do so. Those found legally responsible for the contamination are liable for the recovery of cleanup costs. When no legally responsible entity can be found, the trust fund created in the act, known commonly as "Superfund," is available to support cleanup expenses.

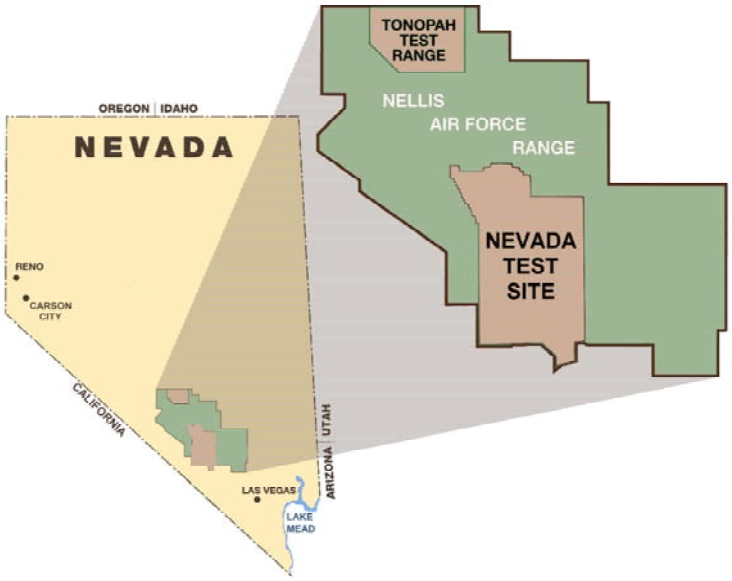
Sampling is conducted by the Environmental Protection Agency.

The *National Environmental Policy Act* (NEPA)

The NEPA, enacted in 1969, was developed to help ensure that federal agencies make informed decisions and fully consider potential environmental consequences and alternatives before beginning new programs or constructing new facilities as part of major federal actions. This applies to any activity that affects the government and is funded or approved by a federal agency. Major federal actions come in all shapes and sizes and might include a rerouted interstate highway, a new dam, or a ski resort expansion on federally-owned land.

The depth of analysis and level of documentation required under NEPA is dependent upon the potential for significant environmental impacts resulting from a proposed action. For projects that may significantly impact the environment, an environmental impact statement may be required. An environmental impact statement presents a very detailed consideration of a proposed action or program, discusses alternatives, and describes potential impacts. The environmental impact statement process includes significant public involvement. The development of an environmental impact statement includes a process known as scoping, during which the general public, other federal and state agencies, and Native American tribes are asked to give their comments and help define the issues that should be "scoped out" or addressed in the document. Once the agency releases the draft environmental impact statement, public hearings are held to solicit input on the draft document. The Nevada Site Office has engaged in this process and published the Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada (DOE/EIS 0243) in August 1996.

For projects not expected to significantly impact the environment or when the potential impacts of the proposed action or alternatives are uncertain, the agency may prepare an environmental assessment. If the analyses in the environmental assessment demonstrate that potential impacts would be insignificant, the agency may prepare a "Finding of No Significant Impact" and proceed to implement the project. If the environmental assessment identifies potentially significant environmental impacts, the agency must then prepare an environmental impact statement before moving forward.



Settlement Agreement

The Settlement Agreement, which was signed by the NSO and NDEP in June 1992, authorizes the NSO to temporarily store only its current inventory of mixed transuranic waste, including both radioactive and RCRA-defined hazardous components, in the transuranic waste building. The storage of additional waste would require the NSO to obtain a permit. Mixed transuranic waste is not normally generated at the NTS; the majority of mixed transuranic waste stored at the NTS was produced at other sites. Ultimately, this waste will be sent to the Waste Isolation Pilot Plant in New Mexico for permanent disposal. The Federal Facility Compliance Act (FFCAct) of 1992 requires the Secretary of Energy to identify existing quantities of mixed waste, develop Site Treatment Plans, and create mixed waste treatment capacity and technologies. Site Treatment Plans must be established for each facility at which DOE stores or generates these wastes, including the NTS. Under this Act, these plans are to be submitted to respective state regulatory agencies or the U.S. Environmental Protection Agency (EPA) to identify the process by which sites will provide the necessary mixed waste treatment capacity.

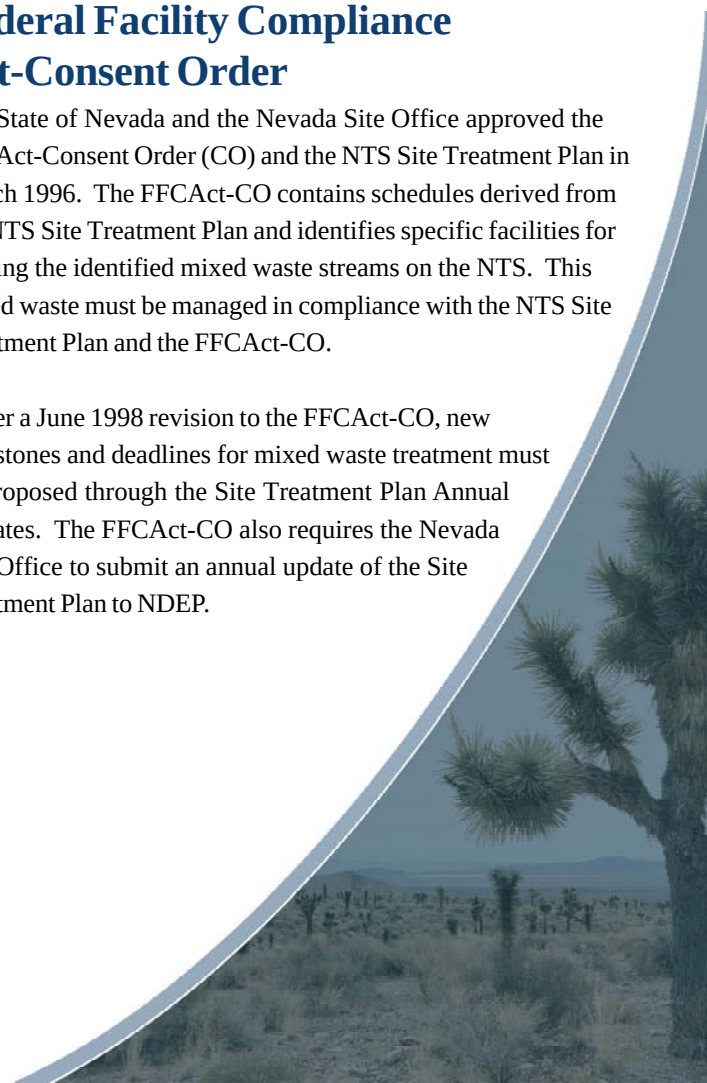
Mutual Consent Agreement

The Mutual Consent Agreement was signed by the Nevada Site Office (NSO) and NDEP in January 1994 and modified in June 1995 and 1998. It authorizes the storage and management of mixed low-level waste in an on-site storage facility on the Transuranic Waste Storage Pad at the Area 5 Radioactive Waste Management Site at the NTS. For mixed low-level waste identified or generated after March 1996, the Nevada Site Office must develop and submit specific treatment and disposal plans to NDEP within nine months of placement on the Transuranic Waste Storage Pad. Transuranic waste is stored on the Transuranic Waste Storage Pad or in the classified storage area. Mixed transuranic waste is stored inside a steel-framed, fabric-covered structure which was completed in 1994 to house the waste containers and further protect them from the effects of weathering. This waste is managed under the Settlement Agreement.

Federal Facility Compliance Act-Consent Order

The State of Nevada and the Nevada Site Office approved the FFCAct-Consent Order (CO) and the NTS Site Treatment Plan in March 1996. The FFCAct-CO contains schedules derived from the NTS Site Treatment Plan and identifies specific facilities for treating the identified mixed waste streams on the NTS. This mixed waste must be managed in compliance with the NTS Site Treatment Plan and the FFCAct-CO.

Under a June 1998 revision to the FFCAct-CO, new milestones and deadlines for mixed waste treatment must be proposed through the Site Treatment Plan Annual Updates. The FFCAct-CO also requires the Nevada Site Office to submit an annual update of the Site Treatment Plan to NDEP.



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Settlement Agreement: Authorizes storage of the current inventory of mixed transuranic waste on the Transuranic Waste Storage Pad.

RCRA Permit

Authorizes operation of a nonradioactive Hazardous Waste Storage Unit and an Explosive Ordnance Disposal Unit.
Requires closure of nine specifically identified historic RCRA-regulated sites.

Mutual Consent Agreement

Authorizes storage of mixed low-level waste in an on-site storage facility on the Transuranic Waste Storage Pad.

Requires that specific treatment and disposal plans be submitted to NDEP within nine months of placement on the Transuranic Waste Storage Pad.

FFACO

Requires that hazardous waste generated by the Nevada Site Office at its facilities in Nevada be stored and managed in accordance with RCRA. Inactive contaminated sites and facilities must be identified, prioritized, investigated and remediated.

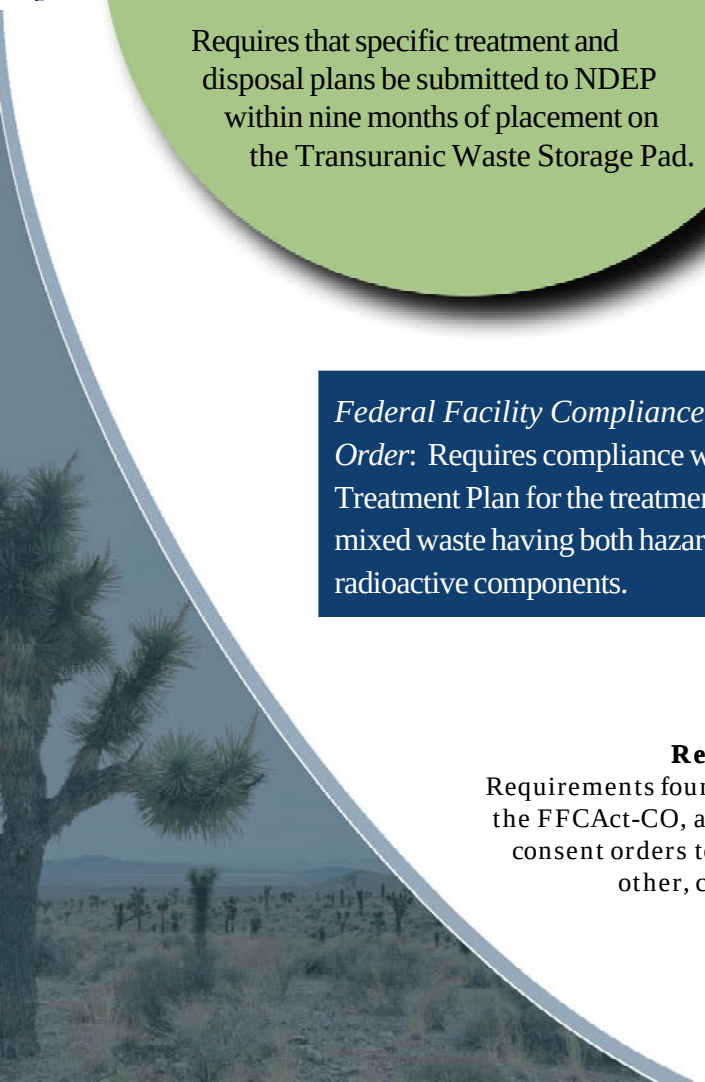
Conditions under which mixed low-level waste is stored.

Corrective action requirements for RCRA-regulated NTS Sites.

NSO-generated hazardous waste stored at the Hazardous Waste Storage Unit.

Nevada Test Site-generated mixed low-level waste

Federal Facility Compliance Act-Consent Order: Requires compliance with the NTS Site Treatment Plan for the treatment and disposal of mixed waste having both hazardous and radioactive components.



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